

Serial No. 09/715,261
Attorney Docket No. 630-1176P
Group Art Unit 2882
Page 2

CLAIM SET AS AMENDED:

1. (Currently Amended) A metal halogen electrodeless illumination lamp, comprising a microwave generator coupled via a coupling means with a microwave cavity which contains a discharge bulb, and a microwave screen, the function of which is performed by some part of walls of the microwave cavity, which is transparent to optical radiation, said discharge bulb containing a fill mixture with a main component of metal halogens which emits visible optical radiation featuring a molecular spectrum, immediately when excited with a high frequency discharge, and an inert gas, of which said main component of said fill mixture of metal halogens includes halides of Sn and Al.

2. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim 1, wherein a halogen component of said halides is selected from the group consisting of chlorine, iodine and bromine.

3. (Original) The metal halogen electrodeless illumination lamp according to claim 1, wherein the fill mixture of metal halogens includes SnBr_2 and AlI_3 .

Serial No. 09/715,261
Attorney Docket No. 630-1176P
Group Art Unit 2882
Page 3

4. (Original) The metal halogen electrodeless illumination lamp according to claim **1**, wherein the fill mixture of metal halogens includes SnI_2 and AlBr_3 .

5. (Original) The metal halogen electrodeless illumination lamp according to claim **1**, wherein the fill mixture of metal halogens further includes bismuth halide.

6. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim **5**, wherein a halogen component of said halides is selected from the group consisting of chlorine, iodine and bromine.

7. (Original) The metal halogen electrodeless illumination lamp according to claim **5**, wherein the fill mixture of metal halogens includes SnI_2 and AlBr_3 .

8. (Original) The metal halogen electrodeless illumination lamp according to claim **5**, wherein the fill mixture of metal halogens includes SnBr_2 and AlI_3 .

9. (Original) The metal halogen electrodeless illumination lamp according to claim **5**, wherein the fill mixture of metal halogens includes BiI_3 .

Serial No. 09/715,261
Attorney Docket No. 630-1176P
Group Art Unit 2882
Page 4

10. (Original) The metal halogen electrodeless illumination lamp according to claim **1**, wherein the amount of a fill substance is such that it would allow to maintain the gas vapors pressure in the range of 1~20 atm at working temperature of the lamp.

11. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim **1**, wherein the inert gas is argon or xenon.

12. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim **1**, wherein the discharge bulb additionally contains a small amount of at least one metal selected from the group consisting of Zn, Na, Li or a compound thereof.

13. (Currently Amended) A metal halogen electrodeless illumination lamp, comprising a microwave generator coupled via a coupling means with a microwave cavity which contains a discharge bulb, and a microwave screen, the function of which is performed by some part of walls of the microwave cavity, which is transparent to optical radiation, said discharge bulb containing a fill mixture with a main component of metal halogens which emits visible optical radiation featuring a molecular spectrum, immediately when excited

Serial No. 09/715,261
Attorney Docket No. 630-1176P
Group Art Unit 2882
Page 5

with a high frequency discharge, and an inert gas, of which said main component of said fill mixture of metal halogens includes bismuth halide.

14. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim **13**, wherein a halogen component of said halides is selected from the group consisting of chlorine, iodine and bromine.

15. (Original) The metal halogen electrodeless illumination lamp according to claim **13**, wherein the fill mixture of metal halogens includes BiI_3 .

16. (Original) The metal halogen electrodeless illumination lamp according to claim **13**, wherein the discharge bulb contains a mixture of halides additionally including compounds of Sn and Al.

17. (Amended) The metal halogen electrodeless illumination lamp according to claim **16**, wherein a halogen component of said halides is selected from the group consisting of chlorine, iodine and bromine.

18. (Original) The metal halogen electrodeless illumination lamp according to claim **16**, wherein the fill mixture of metal halogens includes BiI_3 .

Serial No. 09/715,261
Attorney Docket No. 630-1176P
Group Art Unit 2882
Page 6

19. (Original) The metal halogen electrodeless illumination lamp according to claim **16**, wherein the fill mixture of metal halogens includes SnBr_2 and AlI_3 .

20. (Original) The metal halogen electrodeless illumination lamp according to claim **16**, wherein the fill mixture of metal halogens includes SnI_2 and AlBr_3 .

21. (Original) The metal halogen electrodeless illumination lamp according to claim **13**, wherein the amount of a fill substance is such that it would allow to maintain the gas vapors pressure in the range of 1~20 atm at working temperature of the lamp.

22. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim **13**, wherein the inert gas is argon or xenon.

23. (Previously Presented) The metal halogen electrodeless illumination lamp according to claim **13**, wherein the discharge bulb additionally contains a small amount of at least one metal selected from the group consisting of Zn, Na, Li or a compound thereof.